

## 6.0 CLEANUP ACTION CRITERIA

The Model Toxics Control Act Cleanup Regulation describes the requirements for selecting cleanup action (WAC 173-340-360). It specifies the criteria for approving cleanup actions, the order of preference for cleanup technologies, policies for permanent solutions, the application of these criteria to particular situations, and the process for making these decisions.

### 6.1 THRESHOLD REQUIREMENTS [WAC 173-340-360(2)]

All cleanup actions shall:

1. Protect human health and the environment.
2. Comply with cleanup standards.
3. Comply with applicable state and federal laws.
4. Provide for compliance monitoring.

### 6.2 OTHER REQUIREMENTS [WAC 173-340-360(3)]

The selected cleanup action must also:

1. Use permanent solutions to the maximum extent practicable.
2. Provide for a reasonable restoration time frame.
3. Consider public concerns raised during public comment on the draft cleanup action plan.

### 6.3 CLEANUP TECHNOLOGY HEIRARCHY [WAC 173-340-360(4)]

Cleanup of hazardous waste sites shall utilize technologies that minimize the amount of untreated hazardous substances remaining at a site. The following technologies shall be considered in order of descending preference:

1. Reuse or recycling;
2. Destruction or detoxification;
3. Separation or volume reduction followed by reuse, recycling, destruction, or detoxification of the residual hazardous substances;
4. Immobilization of hazardous substances;

5. On-site or off-site disposal at an engineering facility designed to minimize the future release of hazardous substances and in accordance with applicable state and federal laws;
6. Isolation or containment with attendant engineering controls;
7. Institutional controls and monitoring.

#### 6.4 CRITERIA FOR PERMANENT SOLUTIONS [WAC 173-340-360(5)]

When selecting a cleanup action, preference shall be given to permanent solutions to the maximum extent practicable. The following criteria are used to determine whether a cleanup action is permanent to the maximum extent practicable:

- Overall protection of human health and the environment including the degree to which existing risks are reduced, time required to reduce the risk at the facility and attain cleanup standards, on-site and off-site risks resulting from implementing the alternative, the degree the cleanup action may perform to a higher level than specified cleanup standards, and improvement of the overall environmental quality.
- Long term effectiveness including degree of certainty that the alternative will be successful, long-term reliability, magnitude of residual risk, and effectiveness of controls required to manage treatment residues and wastes.
- Short-term effectiveness including protection of human health and the environment during construction and implementation of the alternative, and the degree of risk to human health and the environment prior to attainment of cleanup standards.
- Permanent reduction of toxicity, mobility and volume of hazardous substances including adequacy of the alternative in destroying the hazardous substances, reduction or elimination of hazardous substances releases and sources of releases, degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated.
- Ability to be implemented including consideration of whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction, operations and monitoring, and integration with existing facility operations and other current or potential remedial actions.
- Cleanup costs. A cleanup action shall not be considered practicable if the incremental cost of the cleanup action is substantial and disproportionate to the incremental degree of protection it would achieve over a lower preference cleanup action. When selecting from among two or more cleanup action alternatives, which have an equivalent level of preference, preference may be given to the least cost alternative.

- The degree to which community concerns is addressed.